



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,066	10/09/2001	Jeff Powell	2001P07471US01	6634

24500 7590 08/27/2003

SIEMENS CORPORATION  
INTELLECTUAL PROPERTY LAW DEPARTMENT  
170 WOOD AVENUE SOUTH  
ISELIN, NJ 08830

EXAMINER

PHAM, MINH CHAU THI

ART UNIT	PAPER NUMBER
----------	--------------

1724

DATE MAILED: 08/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/974,066

Applicant(s)

POWER

Examiner

PHAM

Art Unit

1724

-- Th MAILING DATE of this communication appears on the cover sheet with the corresponding address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- Amdt B & Amdt C*
- 1) ☒ Responsive to communication(s) filed on 05/16/03 & 06/06/03
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 6-10, 13-17 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 6-10, 13-17 and 19-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

Art Unit: 1724

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 6-10, 13-17 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leliaert (3,853,509; 40, 80, 82, 86, 90 & 92 in Fig. 3a; col. 2, lines 20-57; col. 4, line 65 through col. 5, line 30), in view of either Lefkowitz et al (4,181,514; 1-4 in Fig. 7; col. 3, line 54 through col. 4, line 18; col. 4, line 64 through col. 5, line 14) or Giacovas (4,004,899; 1 & 2 in Figs. 1-3; col. 1, lines 25-44; col. 2, lines 52-67).

Leliaert discloses an air filter comprising a pleated filter support having support members and each support member spaced from an adjacent support member to at least partially form a pleated shape (86 & 92 in Fig. 3a), and a filter (40) at least partially supported by support members wherein the pleated filter support comprises a plurality of posts in at least a partially annular form (see Fig. 3a). Either Lefkowitz et al or Giacovas discloses the filter medium can be glued or bonded by adhesive in order to assure the holding of the filter medium within the pleats of the support member. Giacovas also discloses an air filter housing with air flowing through the filter housing in a first direction, a pleated filter support operatively connected to the filter housing having support members spaced from an adjacent support member in a pleated shape and a filter

Art Unit: 1724

supported by support members. Leliaert discloses a method of manufacturing an air filter comprising the steps of arranging a plurality of posts into pleats, forming the pleats into a partially annular form, adhering a filter to the pleats, and sealing the filter to the support. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the filter apparatus as taught by Leliaert in combination with Lefkowitz et al and Giacovas in order to provide a filter support which increases the capacity or reduce the pressure drop without increasing in the space and to provide for increased filter surface area without increasing in size of the filter device.

***Response to Amendment***

3. Applicant's arguments filed on May 16, 2003 and June 6, 2003 have been fully considered but they are not persuasive.

Applicant's main argument is that none of the cited references discloses "a plurality of posts to defining a pleated shape in an at least a partially annular form". The Examiner newly introduces Leliaert as the primary reference to show an air filter comprising a pleated filter support having support members and each support member spaced from an adjacent support member to at least partially form a pleated shape (86 & 92 in Fig. 3a), and a filter (40) at least partially supported by support members wherein the pleated filter support comprises a plurality of posts in at least a partially annular form (see Fig. 3a), as claimed.

Art Unit: 1724

4. Applicant's arguments with respect to claims 1, 6-10, 13-17 and 19-21 have been thoroughly considered but are moot in view of the new ground(s) of rejection, as discussed in paragraph 2 above.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Chau Pham whose telephone number is (703) 308-1605. The examiner can normally be reached on Monday-Friday (except Wednesday) from 7:15 a.m. to 5:45 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Blaine Copenheaver, can be reached on (703) 308-1261. The fax phone number for this Group is (703) 872-9310 (non-finals) or (703) 872-9311 (after-finals).

Application/Control Number: 09/974,066

Page 5

Art Unit: 1724

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to read 'Minh-Chau Pham', with a stylized, cursive script.

**Minh-Chau Pham**

**Patent Examiner**

August 18, 2003